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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHOUDHARY, ANITA

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 09/24/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/371,916

Applicant(s)

LIU ET AL.

Examiner

Anita Choudhary

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 August 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 15,16,19,20 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14,17,18 and 21-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

The amendment filed on August 7, 2003 has been entered. Claims 1, 2, 4, 10, 11, 12, 14, 17, 18, and 21 have been amended and are presented for further examination. Claims 15, 16, 19, 20, and 25 have been cancelled.

Claims 1-14, 17, 18, and 21-24 are presented.

### ***Response to Arguments***

Applicant argues that Huang teaches away from the pending claims. Huang shows a system facilitating the transfer of packets by comparing source and destination address information of transmitted packet to address table in order to sort transmission. Applicant states that Huang explicitly teaches that a packet with a destination address that cannot be located in the address table will be broadcast to every port. And that this clearly teaches away from the pending claims. In addition Applicant states that reference by Nair does not show filtering of inbound traffic.

In response, although Huang shows an unmatched packet being broadcast, it is well known in the art that an address filter as shown by Huang can drop packets and prevent further transmission if there is no address match found in the address table. Examiner takes Official Notice on this fact and further points out that Dai teaches the filtering of incoming packets to

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prevent packets whose destination addresses do not match an address in the address table from being delivered (see Dai col. 4 lines 29-34).

Given this, the rejection has been changed to reflect the teaching of Dai in view of Huang. Applicant has also amended claims to show cable modem and cable network receiving incoming and outgoing packets. This is also a well known feature as shown by new reference Beighe et al (US 5,809,252).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 and 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dai et al (US 5,615,340) in view of Huang (US 6,480,488) in further view of Beighe et al (US 5,809,252).

Dai shows a system for having an incoming packet controller for controlling incoming packet transmission. Dai shows:

- Receiving incoming data packet having a destination address, comparing the destination address of the incoming data packet to the list of addresses (col. 4 lines 16-29).
- Transmitting incoming data packet to communication device that are associated with destination addresses on the list of addresses (col. 4 lines 24-29).
- If destination address does not match address in the list of addresses, then filtering the incoming data packet to prevent transmission (col. 4 lines 29-34, col. 6 lines 7-36).

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Although Dai shows substantial features of the claimed invention, Dai does not explicitly automatically registering a list of addresses associated with outgoing packets. Nonetheless this feature is well known in the art, and would have been an obvious modification to the system disclosed by Dai as evidenced by Huang.

In an analogous art Huang discloses a system for sorting and transmitting data packets on a LAN from various registered source addresses to destination addresses in a table (Abstract).

Huang shows:

- Receiving an outgoing data packet from a communications device (31n), the out going packet having and address that identifies the communication device (source address) (col. 4 line 1-16).
- Comparing the address with a list of address (314) that identifies any communication devices that have previously been registered with the processing device (col. 3 lines 12-15, col. 4 lines 38-45).
- Determining that the address is not included in the list (314) (col. 3 lines 12-21, col. 4 lines 38-50).
- Adding the address to the list of address (314) (col. 3 lines 12-21, col. 4 lines 38, 50).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system shown by Dai to employ the features taught by Huang in order to increase network speed (see Huang col. 2 lines 44-59).

Although Dai in view of Huang show substantial features of the claimed invention, they do not explicitly show cable modem receiving incoming and outgoing packets. Nonetheless this

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feature is well known in the art, and would have been an obvious modification to the system disclosed by Dai and Huang as evidenced by Beighe.

In an analogous art, Beighe shows an interface for capturing and filtering incoming packets. Beighe shows cable modem (16) connected to cable network (21) for filtering packet traffic (col. 4 lines 30-47).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system shown by Dai in view of Huang in order to decrease cost of utilizing a cable network for Internet access (see Beighe col. 1 lines 48-60).

Claims 2-14, 17, 18, and 22-24 rejected under 35 U.S.C. 103(a) as being unpatentable over Dai in view of Huang and Beighe, in referring to claim 1 and 21, and in further view of Parameswaran Nair et al. (US Patent 5,724,356), hereinafter referred to as Nair.

In referring to claim 2, although the combined teachings of Dai in view of Huang and Beighe shows substantial features of the claimed invention, as discussed above, it does not explicitly disclose processing device comprising bridging component. Nonetheless, this feature is well known in the art and would have been an obvious modification to the system disclosed by Huang in view of Dai as disclosed by Nair.

In an analogous art, Nair shows bridge system filtering traffic to restrict unnecessary bridge traffic. Nair shows a processing device (LAN modem) associated with bridging component (fig. 17, col. 3 lines 51-64).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system disclosed by Dai in view of Huang by

employing the conventional feature of bridges, as shown by Nair, in order to connect two LAN in a wide area network.

In referring to claim 3, Nair shows a buffer for receiving packet on the modem and the packet in buffer being processed by bridge filtering process (col. 25 lines 22-48).

In referring to claim 4, Nair show the act of determining that the destination is not local to the node (col. 23 lines 55- col. 24 lines 10).

In referring to claim 5, Nair show the act of determining that the destination is on the local node and not allowing the packet to cross the bridge to another network therefore transmitting to the local user (col. 23 lines 18-54).

In referring to claims 6-8 and 19, Huang shows comparing address with a list of address that identify communication device that has previously been registered, and determining that is not included and adding the address to the list (col. 4 lines 38-50).

In referring to claim 9, Huang shows the act of communication device (31n) generating the outgoing packet (col. 4 lines 1-10).

In referring to claim 10, Nair shows the user writing packet to receive buffer, which is a separate buffer for communication device used by bridge, and Nair shows second transmitting buffer (col. 25 lines 23-48).

In referring to claim 11, Huang show the packet being transmitted for the first time to communicate over the network by registering with a packet and the act of adding the address to the entry table on order to be registered (col. 4 lines 38-45).

In referring to claim 12, Nair show remote communication device having modem driver installed and the act of using the modem for first time registration using a packet (col. 4 lines 59-col. 5 line 5).

In referring to claim 13 and 22, Dai shows the receiving a packet having destination address, recognizing whether the address is in the entry table, and transmitting packet upon recognition (col. 4 lines 16-35).

In referring to claim 14, Nair show the act of receiving packet at modem and transmitting packet to modem driver (col. 19 lines 51-63).

In referring to claim 17, Nair shows modem hosted by processing device (main controller) internal to the system (fig. 2; col. 5 lines 40-52).

In referring to claim 18, Nair shows the modem external to main controller (fig. 2; col. 5 lines 40-52).

In referring to claim 23 and 24, Dai shows the destination does not match any address in the list of address and the incoming data packet is filtered or further processing is discontinued (col. 6 lines 7-36).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita Choudhary whose telephone number is (703) 305-5268. The examiner can normally be reached on 9am-5pm.




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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

AC  
September 12, 2003



GLENTON B. BURGESS  
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